

18 AAC 70 is amended by adding a new section to read:

18 AAC 70.240. Mixing zones. (a) Upon application, the department may authorize in a discharge permit, certification, or order, a mixing zone or multiple mixing zones in which the water quality criteria and any limit set by or under this chapter may be exceeded. The applicant shall provide to the department all available evidence reasonably necessary to demonstrate that a mixing zone will satisfy this section and shall provide information in a form and using methods approved by the department. The department may approve, approve with conditions, or deny a mixing zone application.

(b) In determining whether to authorize a mixing zone under this section, the department will consider

(1) the characteristics of the receiving water, including biological, chemical, and physical characteristics such as volume, flow rate, flushing and mixing characteristics;

(2) the characteristics of the effluent, including volume, flow rate, dispersion, and quality after treatment;

(3) the effects, if any, including cumulative effects of multiple discharges and diffuse, nonpoint source inputs, that the discharge will have on the uses of the receiving water;

(4) any additional measures that would offset potential adverse effects to the aquatic resources present; and

(5) any other factors the department finds must be considered to determine whether a mixing zone will comply with this section.

(c) The department will approve a mixing zone, as proposed or with conditions, only if it finds that available evidence reasonably demonstrates that

(1) an effluent or substance will be treated to remove, reduce, and disperse pollutants, using methods found by the department to be the most effective and technologically and economically feasible, consistent with the highest statutory and regulatory treatment requirements;

(2) existing uses of the waterbody outside the mixing zone will be maintained and protected;

and (3) the overall biological integrity of the waterbody will not be impaired;

(4) the mixing zone will not

(A) result in a toxic effect in the water column, sediments, or biota outside the boundaries of the mixing zone;

(B) create a public health hazard through encroachment on existing uses of the waterbody for water supply or contact recreation;

(C) preclude or limit established processing activities or commercial, sport, personal-use, or subsistence fish and shellfish harvesting;

(D) in streams, rivers, or other flowing fresh waters, result in a reduction in fish population levels;

(E) in streams, rivers, or other flowing fresh waters, adversely affect the capability of an area to support spawning, incubation or rearing of anadromous or resident fish;

(F) in streams, rivers, or other flowing fresh waters, result in permanent or irreparable displacement of indigenous organisms;

(G) adversely affect threatened or endangered species under the Endangered Species Act (16 U.S.C. 1531-1544); or

(H) form a barrier to migratory species or fish passage.

(d) The department will approve a mixing zone, as proposed or with conditions, only if the department finds that available evidence reasonably demonstrates that within the mixing zone the pollutants discharged will not

(1) bioaccumulate, bioconcentrate, or persist above natural levels in sediments, water, or biota to significantly adverse levels, based on consideration of bioaccumulation and bioconcentration factors, toxicity, and exposure;

(2) present an unacceptable risk to human health from carcinogenic, mutagenic, teratogenic, or other effects;

(3) settle to form objectionable deposits, except as authorized under 18 AAC 70.210;

(4) produce floating debris, oil, scum and other material in concentrations that form nuisances;

(5) result in undesirable or nuisance aquatic life;

(6) produce objectionable color, taste, or odor in aquatic resources harvested for human consumption;

(7) cause lethality to passing organisms;

(8) exceed acute aquatic life criteria at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall, the size of which shall be determined using methods approved by the department.

(e) The department will approve a mixing zone, as proposed or with conditions, only if it finds that the mixing zone is as small as practicable and will comply with the following size restrictions, unless the department finds that evidence is sufficient to reasonably demonstrate that these size limitations can be safely increased:

(1) for estuarine and marine waters, measured at mean lower low water,

(A) the cumulative linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel, or other marine water may not exceed 10 percent of the total length of that cross section; and

(B) the total horizontal area allocated to mixing zones may not exceed 10 percent of the surface area;

(2) for lakes, the total horizontal area allocated to all mixing zones may not exceed 10 percent of the lake's surface area;

(3) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend beyond the computed point of complete mixing, as determined using a standard river flow mixing model or other methods accepted by the department;

Register ___, _____ 200__ ENVIRONMENTAL CONSERVATION

(4) for streams, rivers, or other flowing fresh waters, the length of a mixing zone may not extend downstream beyond the location where the department determines that a public health hazard will occur.

(f) For streams, rivers, or other flowing fresh waters, in calculating the maximum pollutant discharge limitation, the volume of flow available for dilution must be determined using the actual flow data collected concurrent with the discharge or using other methods approved by the department.

(g) If the department finds that available evidence reasonably demonstrates that a mixing zone authorized by the department has had or is having a significant unforeseen adverse environmental effect, the department will terminate, modify, or deny renewal of the permit, certification, or order authorizing the mixing zone. (Eff. 11/1/97, Register 143; am ___/___/___, Register ___)

Authority:	AS 46.03.010	AS 46.03.080	AS 46.03.110
	AS 46.03.020	AS 46.03.090	AS 46.03.710
	AS 46.03.050	AS 46.03.100	AS 46.03.720
	AS 46.03.070		

18 AAC 70.245 is repealed:

18 AAC 70.245. Mixing zones: appropriateness and size determination.
Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.250 is repealed:

18 AAC 70.250. Mixing zones: general conditions. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.255 is repealed:

18 AAC 70.255. Mixing zones: in-zone quality and size specifications.
Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

18 AAC 70.260 is repealed:

18 AAC 70.260. Mixing zones: application requirements. Repealed. (Eff. 11/1/97, Register 143; repealed ___/___/___, Register ___)

Register ____, _____ 200__ ENVIRONMENTAL CONSERVATION

18 AAC 70.270 is repealed:

18 AAC 70.270. Mixing zones: termination, modification, or denial of renewal. Repealed. (Eff. 11/1/97, Register 143; repealed __/__/____, Register ____)